NASA SBIR/STTR Technologies

UAS Demand Generation and Airspace Performance Impact Prediction

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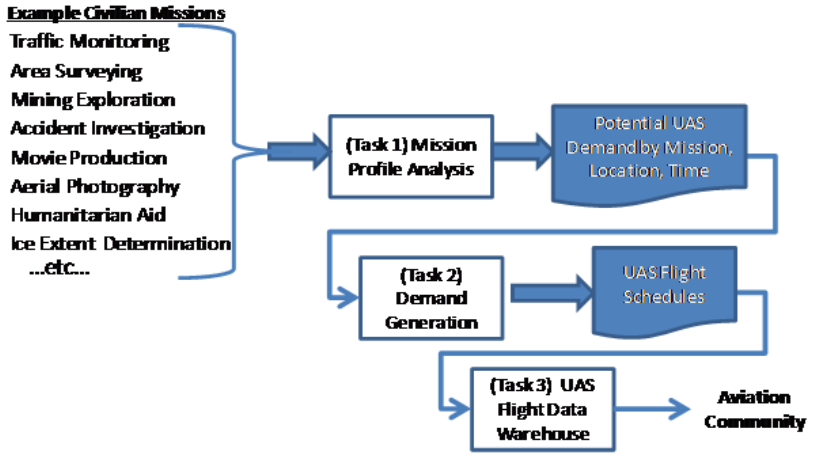
Proposal No.:

Identification and Significance of Innovation

There are three innovations in our proposal: (1) we propose to use activity-based modeling with expected UAS mission profiles to develop credible demand forecasts; (2) we propose to build technology that will translate these forecasts into flight data sets for UAS vehicles; and (3) we propose to build a data warehouse containing multiple flight data sets prepared for different UAS missions, that can be accessed by aviation researchers for particular analysis needs.

Estimated TRL (1 – 9) at beginning and end of contract: 1-2



Technical Objectives and Work Plan

Demonstrate the feasibility of our approach by performing the following tasks:

- **Design and exercise an activity-based modeling system for UAS missions.**
- **Translate UAS demand information from the activity-based modeling into specific flight times and locations**
- **Store the resulting flight data sets in a data warehouse**
- **Demonstrate the utility of these flight data sets by running an example UAS analysis on its impact on airspace utilization.**

NASA and Non-NASA Applications

NASA: The NASA UAS program needs credible sources of future UAS demand to run scenarios in fast-time and real-time simulation systems.

Non-NASA: The aviation community, in determining the impact of UAS worldwide, also requires a credible source of UAS demand for scenario development and analysis.

Firm Contacts

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